

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A transmitting device for transmitting a digital information signal via a transmission medium,

~~including said transmitting device comprising:~~

... input means for receiving the digital information signal<sub>T,L</sub>

5 ... ~~adaptive prediction filter means adapted to derive for~~  
~~deriving~~ a prediction signal from the digital information signal in  
dependence on an array of prediction filter coefficients<sub>T,L</sub>

... first signal combination means for combining the digital  
information signal and said prediction signal so as to obtain a

10 residual signal<sub>T,L</sub>

... encoding means for encoding said residual signal so as to  
obtain an encoded signal<sub>T,L</sub>

... coefficient generator means for generating an array of  
filter coefficients A[i] in response to the digital information

15 signal, i being an integer for which it holds that  $0 \leq i < p$ , where  
p is a variable<sub>T,L</sub>

... output means for supplying the encoded signal to an output  
terminal for transmission via the transmission medium<sub>T,L</sub> and

... smoothing means for smoothing the array of filter  
20 coefficients A[i] so as to obtain the array of prediction filter  
coefficients for supply to the adaptive prediction filter means<sub>L</sub>

wherein the smoothing means includes low-pass filtering means for low-pass filtering the array of filter coefficients so as to obtain the prediction filter coefficients, and

25 wherein said low-pass filtering means performs the following equations to obtain the coefficients:

$$\text{Cout}[0] = \text{Cin}[0],$$

$$\text{Cout}[i] = 0.25 \cdot \text{Cin}[i+1] + 0.5 \cdot \text{Cin}[i] + 0.25 \cdot \text{Cout}[i-1],$$

whereby  $i$  is an integer and  $1 \leq i \leq n-2$ ,

$$\text{Cout}[n-1] = \text{Cin}[n-1].$$

30  $\text{Cin}[x]$  being coefficient number  $x$  before smoothing, and  $\text{Cout}[x]$  being coefficient number  $x$  after smoothing.

2. (Cancelled).

3. (Currently Amended) The transmitting device ~~of as claimed~~ in claim 21, characterized in that the low-pass filtering means ~~comprise-comprises~~ an FIR filter.

4. (Currently Amended) The transmitting device ~~of as claimed~~ claim 21, characterized in that the low-pass filtering means ~~comprise-comprises~~ an IIR filter.

5. (Cancelled).

6. (Currently Amended) The transmitting device ~~of as claimed~~  
~~in any one of the preceding claims, wherein said transmitting~~  
~~device further comprises:~~

.....an arrangement for writing the encoded signal on a record  
5 carrier.

7. (Currently Amended) A method of transmitting a digital  
information signal via a transmission medium, ~~said method~~  
~~comprising the steps of:~~

--- receiving the digital information signal $\tau_i$

5 --- deriving a prediction signal from the digital information  
signal in dependence on an array of prediction filter  
coefficients $\tau_i$

--- combining the digital information signal and said  
prediction signal so as to obtain a residual signal $\tau_i$

10 --- encoding said residual signal so as to obtain an encoded  
signal $\tau_i$

--- generating an array of filter coefficients  $A[i]$  in  
response to the digital information signal,  $i$  being an integer for  
which it holds that  $0 \leq i < p$ , where  $p$  is a variable $\tau_i$

15 --- supplying the encoded signal to an output terminal for  
transmission via the transmission medium $\tau_i$  and

--- smoothing the array of filter coefficients  $A[i]$  so as to  
obtain the array of prediction filter coefficients $\tau_i$  ~~wherein:~~

the smoothing includes low-pass filtering the array of filter coefficients  $A[i]$  so as to obtain the prediction filter coefficients;

the low-pass filtering is selected between one or more of FIR filtering and IIR filtering;

the low pass filtering applies the following equations to obtain the prediction filter coefficients:

$$Cout[0] = Cin[0];$$

$$Cout[i] = 0.25 * Cin[i+1] + 0.5 * Cin[i] + 0.25 * Cout[i-1],$$

whereby  $i$  is an integer and  $1 \leq i \leq n-2$ ;

$Cout[n-1] = Cin[n-1]$ ,  $Cin[x]$  being coefficient number  $x$  before smoothing, and  $Cout[x]$  being coefficient number  $x$  after smoothing;

supplying the encoded signal includes writing the encoded signal on a record carrier.

8. (Cancelled).

9. (Cancelled).

10-12. (Cancelled).

13. (Currently Amended) A method of transmitting information via a transmission medium, said method comprising the steps of:  
receiving a digital information signal;

generating a plurality of filter coefficients in response  
5 | to the digital information signal $r_i$   
smoothing the filter coefficients to obtain a plurality of  
| prediction filter coefficients $f_i$   
deriving a prediction signal from the digital information  
| signal in dependence on the filter coefficients $r_i$   
10 | combining the digital information signal and the  
| prediction signal to obtain a residual signal $r_i$   
encoding said residual signal to obtain an encoded

signal $r_i$ ; and

supplying the encoded signal to the transmission medium $f_i$   
15 | ~~wherein said smoothing step comprises low-pass filtering of the~~  
~~filter coefficients to obtain the prediction filter coefficients,~~  
~~and wherein the low pass filtering step performs the following~~  
~~equations to obtain the coefficients:~~

~~Cout[0] = Cin[0];~~

20 | ~~Cout[i] = 0.25\*Cin[i+1] + 0.5\*Cin[i] + 0.25\*Cout[i-1];~~

~~whereby i is an integer and 1 ≤ i ≤ n-2;~~

~~Cout[n-1] = Cin[n-1], Cin[x] being coefficient number x~~  
~~before smoothing, and Cout[x] being coefficient number x after~~  
~~smoothing.~~

14. (Cancelled).

15. (Currently Amended) The method ~~as claimed in claim 1413,~~  
wherein the low-pass filtering ~~step~~ comprises ~~an~~-FIR  
~~filter~~filtering.

16. (Currently Amended) The method ~~as claimed in claim 1413,~~  
wherein the low-pass filtering ~~step~~ comprises ~~an~~-IIR  
~~filter~~filtering.

17. (Cancelled).

18. (Currently Amended) The method ~~of~~-~~as claimed in claim 1413,~~  
wherein ~~said~~ generating step comprises generating an array of  
filter coefficients, and ~~said~~ smoothing ~~comprise step~~ comprises  
smoothing the filter coefficients to obtain an array of prediction  
5 filter coefficients.